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#### **REMARKS**

Claims 52 and 53 are pending in the subject application. By this Amendment, applicants have amended claim 52. The amendment to claim 52 is fully supported in the specification as filed at, *inter alia*, page 19, lines 26-30; page 29, lines 16-33; and page 35, lines 20-22. Thus, these amendments do not raise any issue of new matter. Accordingly, applicants respectfully request that the Examiner enter this Amendment. Upon entry of this Amendment, claims 52 and 53, as amended, will be pending and under examination.

#### **The Invention**

The invention claimed in the subject application provides an isolated peptide (i) encoded by a nucleic acid of at least 30 nucleotides in length having a sequence which constitutes a portion of the sequence set forth in SEQ ID NO:14, and (ii) which binds to an antibody in a binding reaction that is determinative of a herpesvirus associated with Kaposi's sarcoma. This herpesvirus is present in and recoverable from the HBL-6 cell line (ATCC Accession No. CRL 11762). The invention also provides a composition comprising the instant isolated peptide and a carrier.

#### **Rejections Under 35 U.S.C. §112, First Paragraph, Written Description**

The Examiner rejected claims 52 and 53 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner alleged that an antibody binding reaction that is determinative of a herpesvirus associated with Kaposi's sarcoma is interpreted to mean that the binding reaction is specific enough to determine whether a KS-

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associated herpesvirus is present to the exclusion of other herpesviruses. The Examiner further alleged that the binding reaction must indicate the presence of herpesvirus associated with KS and distinguish such a herpesvirus from other herpesviruses that may or may not also be present. The Examiner also alleged that the claims do not provide any structural information with regard to which peptides encoded by a nucleic acid which constitutes a portion of SEQ ID NO:14 are capable of distinguishing between a herpesvirus associated with KS and any other herpesvirus. The Examiner alleged that the rejected claims comprise a set of peptide sequences that are defined by their function.

Further, the Examiner alleged that no description is provided of a single peptide encoded by a nucleic acid of at least 30 nucleotides in length having a sequence which constitutes a portion of the sequence set forth in SEQ ID NO:14 which also binds to an antibody in a binding reaction that is determinative of a herpesvirus associated with Kaposi's sarcoma and does not bind to any other kind of herpesvirus. The Examiner also alleged that the disclosure of full length SEQ ID NO:14 does not provide enough information to extrapolate which peptides encoded by a portion of this sequence would fulfill the claim limitations.

In response, without conceding the correctness of the Examiner's position, applicants respectfully traverse this rejection.

Under MPEP §2163, to satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures,

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diagrams, and formulas that fully set forth the claimed invention.

Those skilled in the art would recognize that the subject application discloses a deposited cell line, BHL-6, infected with Kaposi's sarcoma associated herpesvirus (KSHV) (See page 26, line 21 to page 27, line 10). Those skilled in the art would also recognize that the subject application discloses the full nucleic acid sequence identified as SEQ ID NO:14, which is the open reading frame, designated ORF21, of the thymidine kinase (TK) gene of the KSHV (See page 129, lines 27-30). Those skilled in the art would further recognize that that subject application indicates that the amino terminus of the KSHV TK gene is not conserved in other herpesvirus TK sequences (See page 129). Thus, those skilled in the art would recognize applicants to be in possession of a unique KSHV sequence that is not conserved among herpesviruses genomes. Those skilled in the art would recognize that portions of this unique sequence can be used to express polypeptides that bind to antibodies which would be specific for the KSHV.

Applicants note that claim 53 depends from claim 52 and therefore necessarily possesses all the elements of claim 52. Applicants maintain that claims 52 and 53 satisfy the written description requirement of 35 U.S.C. §112, first paragraph. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

The Examiner also rejected claims 52 and 53 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner stated that this is a new matter rejection. Specifically, the Examiner alleged that the specification as originally filed does not provide support for

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the limitation "(b) has a genome having substantial sequence identity with the sequence set forth in SEQ ID NO:1."

In response, applicants respectfully traverse this rejection. Without conceding the correctness of the Examiner's position, applicants have amended claim 52 to remove step (b).

Applicants maintain that claims 52 and 53 satisfy the written description requirement of 35 U.S.C. §112, first paragraph. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

**Rejection Under 35 U.S.C. §112, First Paragraph, Enablement**

The Examiner rejected claims 52 and 53 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. The Examiner alleged that while the specification is enabling for the full length SEQ ID NO:14, it is not enabling for the portions of the polypeptide that uniquely define a herpesvirus associated with KS.

In response, without conceding the correctness of the Examiner's position, applicants respectfully traverse this rejection.

Applicant maintains that the claimed method can be practiced by one skilled in the art without undue experimentation. Under MPEP §2164.01, the fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation.

Those skilled in the art can isolate the sequence identified as SEQ ID NO:14 in the subject application from the deposited cell line, BHL-6, infected with Kaposi's sarcoma associated herpesvirus (KSHV). Those skilled in the art can confirm that the

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correct sequence has been isolated by comparing it to the sequence disclosed in the subject application as SEQ ID NO:14. Those skilled in the art can routinely produce and isolate nucleotides of various lengths from SEQ ID NO:14 (e.g. from the amino terminus) and incorporate these sequences into various expression vectors. The various polypeptides can be routinely expressed, isolated and used to produce specifically-binding antibodies. While this experimentation may be complex, it is routinely performed by those skilled in the art.

Applicants maintain that claims 52 and 53 satisfy the enablement requirement of 35 U.S.C. §112, first paragraph. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

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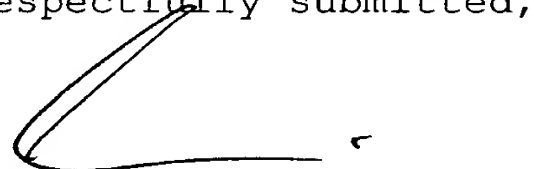
### Conclusion

In view of the preceding remarks, applicants maintain that claims 52 and 53, as amended herein, are in condition for allowance. Applicants therefore earnestly solicit allowance of the claims pending.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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5/22/06  
Date